

Claims

Here I claim:

- 5 1. A system for controlling the key-lock switch by output or cutoff the electronic control signals to switch the key-lock device through editing the received/transmitted information data via spread spectrum digital modulation/demodulation, said system comprises:

10 at least an electronic key which may be operable to transfer the information data, wherein each electronic key comprising an RF transceiver and an antenna that are located in the transmitting end through which one corresponding operator's data of an operator's table will be edited into information, and then the information data is transmitted as radio frequency signal after being edited by baseband coding technology and digital-to-analog convert technology; and

15 at least a key-lock control module, wherein each key-lock control module comprises an RF transceiver and an antenna that are located in the receiving end through which the radio frequency signals are received, and decoded by baseband analog-to-digital convert technology and coding technology, and edited into information data, and then the information data is re-edited as certified data which will be checked and compared one by one by identification program with the certified data table contained in the memory, if it is identified as the same certified data, the key-lock control module will output or cut-off the electronic control signals to open, to close or to switch the key-lock device from open to lock or from lock to open.

25 2. The system of claim 1, wherein a certified data, which is produced and saved into the certified table of the key-lock control module, is a data generated from, through the internal program of the key-lock control module and the information data which is edited from, through the internal program and the data of the operator's table of an electronic key that is corresponding to the key-lock control module, then the re-edited data will be saved into the certified table of the key-lock control module.

30 3. The system of claim 2, wherein a data is further protected and security re-enforced case, a certified data, which is produced and saved into the certified table of the key-lock control module, is a data generated from, through the internal decryption program, the shared data of the key-lock control module and the information data which is edited from, through the encryption program, the shared data and the data of the operator's table of an electronic key that is corresponding to the key-lock control module, then the re-edited data will be saved into the certified table of the key-lock control module.

4. The system of claim 1, wherein the certified table of a key-lock control module is able to store

one or lots certified data edited through the certification process and the identification process for corresponding to the one or many different electronic keys.

5 5. The system of claim 1, wherein the operator's table of an electronic key, is able to store one or lots of operator's data with which the corresponding operator's data of the memory will be edited into information data and sent out when the user operates the operating module of the electronic key.

6. The system of claim 1, wherein the operator's table of the electronic key will store one or lots of operator's data for corresponding to one or many different key-lock control modules.

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7. The system of claim 1, wherein that the reception/transmitting of radio frequency signals of spread spectrum digital modulation/demodulation is executed with the unit composed of baseband, RF transceiver and antenna.

15 8. The system of claim 1, wherein the baseband provides functions of convert analog-to-digital and convert digital-to-analog and radio frequency signals of spread spectrum digital modulation/demodulation.

9. The system of claim 7, wherein the of spread spectrum is one of the following types: Direct Sequence Spread Spectrum (DSSS), Chirp Spread Spectrum (CSS), Frequency Hopping Spread Spectrum (FHSS), Time Hopping Spread Spectrum (THSS), Orthogonal Frequency Division Multiplexing (OFDM) and Packet Binary Convolutional Coding (PBCC).

10. The system of claim 1, wherein the memory of the key-lock control module will save the executed control contents and time as recorded data to show the entering, outing, usage situation and etc.

11. The system of claim 1, wherein the electronic key provides data lines to connect with external devices through which to do the external data input and renew the contents of the operator's table or of the shared data in the memory of the electronic key.

12. The system of claim 1, wherein the key-lock control module provides data lines to connect with external devices through which to control the key-lock device and manage/maintain the key-lock switch system as well.

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13. The system of claim 1, wherein the electronic key provides data lines to connect with external devices and through which the external device may switch the open/close action of a remote key-lock device that is equipped with a key-lock control module by inputting operator's data or

information data.

14. The system of claim 1, wherein the key-lock control module provides data lines to connect with external devices and through which the external device may switch the open/close-action of a key-lock device that is equipped with a key-lock control module by inputting certified data or information data.

15. The system of claim 1, wherein the maintenance of control records, the shared decryption data, and the content of the certified table in the memory of the key-lock control module is executed by an external management system through the connected data lines or through the radio frequency signal transfer.

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